

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,120	04/17/2001	Girish Bhimrao Chafle	YO999-583US2	8591

30743 7590 08/24/2004

WHITHAM, CURTIS & CHRISTOFFERSON, P.C.  
11491 SUNSET HILLS ROAD  
SUITE 340  
RESTON, VA 20190

EXAMINER

BARNES, CRYSTAL J

ART UNIT PAPER NUMBER

2121

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/836,120	CHAFLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Crystal J. Barnes	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 13, 23 and 25 is/are rejected.
- 7) ☒ Claim(s) 2-6, 8-12, 14-22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-25 are pending in this application.

#### *Priority*

2. This application discloses and claims only subject matter disclosed in prior Application No. 09/550,460, filed 17 April 2000, and names an inventor or inventors named in the prior application. Accordingly, this application may constitute a continuation or division. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

#### *Drawings*

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "301-304" in figure 3 and "31-34" on page 8 line 24 have both been used to designate "computers".

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "401" has been used to designate both "all input queues nonempty" in figure 4 and "all queues are empty" on page 12 line 15.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

6. The disclosure is objected to because of the following informalities: the serial number is required for copending patent application filed 30 December 1999 (see page 1 lines 7 and 11 and page 3 line 22). Appropriate correction is required.

7. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see page 16 line 15 and page 17 line 9). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 1, 7 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pub. No. 2002/0091846 A1 to Garcia-Luna-Aceves et al.

As per claim 1, the Garcia-Luna-Aceves et al. reference discloses a method of improving the scalability of real-time collaboration among clients in a peer-to-peer network comprising the step of providing a timestamp and priority-based

serialization protocol (see page 6 [0068], "consensus protocol") that can substitute for a centralized server-based serialization protocol of a real-time collaboration session (see page 4 [0047], "multicast session").

As per claim 7, the Garcia-Luna-Aceves et al. reference discloses clients (see page 3 [0041], "hosts") are fully connected to each other by first-in, first-out (FIFO) ("FIFO") communication channels ("point-to-point channels").

As per claim 23, the Garcia-Luna-Aceves et al. reference discloses interoperability is improved across heterogeneous software/hardware platforms (see page 1 [0008], "network applications") by improving efficiency and scalability (see page 1 [0009], "increased scalability, efficiency") of real-time collaboration (see page 1 [0008], "multicasting communication") without relying on any specialized support from the network/back-end supporting the real-time collaboration ("multicasting communication").

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2002/0091846 A1 to Garcia-Luna-Aceves et al. in view of US Pub. No. 2002/0035602 A1 to Garcia-Luna-Aceves et al.

As per claim 13, the '846 Garcia-Luna-Aceves et al. reference discloses as long as there is at least one client present in a collaboration session at any time, any client participating in the collaboration session can be either dynamic (see page 8 [0090], "dynamically altering multicasts groups") or static ("static membership and long-lived transmissions"), which means that either the client can participate in the collaboration session from start to finish, or it can join and/or leave the collaboration session while the session is ongoing.

The '846 Garcia-Luna-Aceves et al. reference does not expressly disclose as long as there is at least one client present in a collaboration session at any time, any client participating in the collaboration session can be either dynamic or static

The '602 Garcia-Luna-Aceves et al. reference discloses  
(see page 3 [0039], "Open sessions with dynamic membership may incur frequent joining and leaving ... When the root leaves the control tree, the eldest child .. is designated new root.")



At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the dynamically altering multicasts groups with the open sessions to illustrate joining and leaving sessions or recovering from accidental withdrawal of hosts.

One of ordinary skill in the art would have been motivated to illustrate joining and leaving sessions or recovering from accidental withdrawal of hosts to prevent sessions from prematurely ending upon leaving/withdrawal.

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2002/0091846 A1 to Garcia-Luna-Aceves et al. in view of USPN 6,556,724 B1 to Chang et al.

As per claim 25, the Garcia-Luna-Aceves et al. reference does not expressly disclose interoperability in heterogeneous environments is improved by including special support via optimizations and methods oriented towards lightweight clients suited to pervasive devices, which are likely to comprise a large part of heterogeneous environments in the near future.

The Chang et al. reference discloses

(see column 9 lines 1-3, "... a host collaboration computer 210 conducts an image collaboration session with participating thin client 230 and 240, as well as a participating workstation 250.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the host taught by the Garcia-Luna-Aceves et al. reference with the thin clients taught by the Chang et al. reference to illustrate a variety of participating client computers involved in a multicast session.

One of ordinary skill in the art would have been motivated to illustrate a variety of participating client computers involved in a multicast session to develop a collaboration system for applications that requires distribution of large data files that requires only the use of thin clients.

***Allowable Subject Matter***

13. Claims 2-6, 8-12, 14-22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to collaborative systems in general:

USPN 5,689,508 to Lyles

USPN 6,321,252 B1 to Bhola et al.

US Pub. No. 2002/0073228 A1 to Cognet et al.

US Pub. No. 2002/0112244 A1 to Liou et al.

Bennett, Jon C. R. et al., "High Speed, Scalable, and Accurate

Implementation of Packet Fair Queueing Algorithms in ATM

Networks", 1997 International Conference on Network

Protocols Proceedings, 28-31 Oct. 1997,

pages 7 - 14.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is

703.306.5448. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703.308.3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cjb  
20 August 2004



Anthony Knight  
Supervisory Patent Examiner  
Group 3600